No. 13,352.

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

JULES D. GRATIOT and AIR-MAZE CORPORATION,

Appellants,

vs.

FARR COMPANY, a corporation,

Appellee.

APPELLEE'S PETITION FOR REHEARING.

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PAUL P O'BRIEN, CLERK



TOPICAL INDEX

I.

Finding of Fact 13 is in all respects supported by the over-	
whelming weight of the evidence	3
Difference in mode of operation	4
Difference in advantages achieved	6

II.

Physical	exhibit	ΥY	did 1	not	exist	in	the	prior	art	and	was	not	
made	in accore	dance	e with	n th	e Fre	nch	n Ni	estle 1	pater	nt			10

III.

The facts conclusively established at the trial of this action	
fully satisfy the legal requirements for patentability set forth	
in the A. & P. case	12
Conclusion	15

TABLE OF AUTHORITIES CITED

CASES

PAGE

A. & P. Tea Co. v. Supermarket Corp., 340 U. S. 147	
	15
Aronson v. Toy Devices, 1 F. 2d 91	14
James Heekin Co. v. Baker, 138 Fed. 63	14
National Tube Co. v. Aiken, 163 Fed. 254	14
Postage Meter Co. v. Standard Mailing Mach. Co., 9 F. 2d. 19	14
Stearns v. Tinker & Rasor, 220 F. 2d 49	14
Willard v. Union Tool Co., 253 Fed. 48	14

Rules

Federal Rules of Civil Procedure, Rule 52(a)......2, 15

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APPELLEE'S PETITION FOR REHEARING.

Now comes Farr Company, appellee herein, and petitions the Court for a rehearing in this cause. In its decision reversing the judgment of the lower court holding claims 4, 5, 7 and 8 of Farr patent No. 2,286,479 valid and infringed by appellant, this Court held the patent invalid as lacking the "unusual or surprising consequences" required by A. & P. Tea Co. v. Supermarket Corp., 340 U. S. 147. The stated basis for this decision was simply that the Court did not agree with the finding of the lower court [Finding of Fact 13] relating to the French patent No. 739,956, to Niestle.

The only reference made by the Court in its brief opinion to any of the evidence submitted in the trial of this action is to portions of the French patent and to a physical exhibit YY introduced by appellant. The Court states that this physical exhibit shows that the elements of the filter of the French Niestle patent "give exactly the mechanism to collect the dust as in the Farr device." In this it appears that the Court failed to appreciate the true nature of this exhibit. The filter model YY was constructed by the appellants during the trial of this action. As will be shown herein, it does *not* exemplify the filter described in the French Niestle patent and was made contrary to rather than in accordance with the teachings of such patent. Moreover, the Court makes no reference to other fully supported findings of fact which bear directly on the issue of invention of the patent in suit over the French Niestle patent.

It is respectfully submitted that the only possible bases for the decision of this Court were that the Court was misled as to the true nature of physical exhibit YY or, in the alternative, that this Court simply ignored Rule 52(a) of the Federal Rules of Civil Procedure which precludes an appellate court from setting aside findings of fact unless the same be clearly erroneous.

The grounds, therefore, for this petition are:

(1) That Finding of Fact 13, which recites not only the structural differences between the filter of the Farr patent in suit and the French Niestle patent but also that the latter does not operate by the same mode of operation or achieve the advantages of the former, is supported by the overwhelming weight of the evidence, and accordingly cannot be set aside by this Court under the mandate of Rule 52(a) of the Federal Rules of Civil Procedure;

(2) That physical exhibit YY is merely a filter constructed by appellants for the purpose of this suit which filter did not exist in the prior art and was not made in accordance with the French Niestle patent; and

(3) That this Court has disregarded several findings of fact, which are overwhelmingly supported in the record, which findings fully satisfy the legal requirements for patentability as established by the Supreme Court in the A. & P. Tea Co. v. Supermarket Corp. case.

Finding of Fact 13 Is in All Respects Supported by the Overwhelming Weight of the Evidence.

As to Finding of Fact 13 [R. 62], this Court merely states, "We do not agree with this finding." The reasons for such disagreement are not set forth. This finding may be conveniently broken down into four parts:

- (a) That the filter of the French Niestle patent is made of expanded sheets set at right angles to the intended flow of air, rather than parallel as in the Farr patent in suit.
- (b) That when made of metal gauze and oiled these expanded sheets present a solid wall.
- (c) That the Niestle filter does not operate by the same mode of operation as the filter of the patent in suit.
- (d) That the Niestle filter does not achieve the advantages of the Farr patent in suit.

An analysis of its opinion indicates that this Court does not appear to disagree with those portions of the finding indicated as (a) and (b) above, since the Court notes that the metal gauze screens of the Niestle filter are placed at right angles to the flow of air and that the patent contemplates the closing of the gauze apertures with oil. As to these factors, however, the Court states that the first is "irrelevant" and that the second does not create "patentable novelty". These conclusions will be discussed later in this petition.

Accordingly, it must be assumed that this Court's disagreement with Finding of Fact 13 is directed to the above noted portions (c) and (d), that is, whether the Niestle filter operates by the same mode of operation as the Farr filter and whether it achieves the advantages of the Farr filter. These two points will be separately considered.

Difference in Mode of Operation.

The mode of operation of the Farr filter is described in Findings of Fact 4 [R. 59] and 30 [R. 1179] which recite:

"4. At the start of the operation of the air panels of the patent in suit portions of the air flow *through the mesh of the screen members* into the adjoining passages but as the panels become loaded with dust the flow of air becomes more and more confined to flow through the passages." (Emphasis added.)

"30. * * * the new mode of operation * * * in the filter of the Farr patent in suit * * * the dust accumulates progressively along the walls of the passages formed by the corrugations which extend through the filter and which change in direction, thereby permitting turbulent flow of air through the passages and through the mesh of the screen despite increasing dust load." (Emphasis added.)

That the mode of operation of the Farr filter is as described in these findings does not appear to be in dispute. It is frequently described in the record, no testimony was introduced to refute it, and finally appellants do not attack Finding 4 in their Statement of Points on Appeal [R. 825-834]. Appellants attack Finding 30 only to the extent that they contend that the mode of operation recited is not "new" [R. 1451]. A critical feature of this mode of operation is that the air to be filtered may flow *through* the mesh of the screen members. Thus, as stated in the patent:

"The filtering efficiency of the filter is dependent upon the fact, to a large extent, that the air rather than flowing in a stream through the passages 7 and 8 is caused, in fact, to flow through the walls of such passages and the screen openings there provided." (Farr patent, p. 2, col. 2, lines 42 to 46.)

As will be further discussed herein, the essence of the Farr filter is that it achieves the high filtering efficiency of prior art filters such as the Air-Maze Type B [Ex. 5, wherein the air could only flow through the screen interstices since this filter consisted simply of sheets of screen arranged perpendicular to the flow of air] but at the same time achieves a low pressure drop through the filter together with a very slow rise in pressure drop as the dust load accumulates, such as was accomplished by the Detroit paper filter [Ex. C, which was constructed to have passages extending through the filter defined by impervious walls]. These results are accomplished by a filter medium in which the air to be filtered flows through screen interstices but which does not clog up as such interstices themselves become clogged as dust is accumulated on the filter.

As will be more fully discussed in Section II of this petition, a reading of the French Niestle patent demonstrates conclusively that it cannot have the mode of operation of the Farr patent in suit since the walls of the passages extending through the filter are impervious with the result that air cannot flow through them [R. 771]. After hearing the testimony of the expert witnesses for both the parties Judge Hall concluded as to the Niestle patent "that an essential element of that was that there would be a sufficient oil on it to make it a solid wall so that the air would not circulate through the foramans of the screen." [R. 819] This was conceded by appellants' expert witness Russell [R. 459]. It is accordingly respectfully submitted that a filter constructed in accordance with the French Niestle patent is incapable of performing by the same mode of operation as the patented Farr filter and that this portion of Finding of Fact 13 is conclusively established in the record.

Difference in Advantages Achieved.

The final portion of Finding of Fact 13, with which this Court states its disagreement, is that the filter of the French Niestle patent does not achieve the advantages of the Farr patent in suit. Appellee respectfully submits that not only was this finding of fact overwhelmingly supported by the evidence submitted but, further, that not one scintilla of evidence was introduced by the appellants to the contrary. Indeed, no attempt was made by appellants to establish, either by test results or even opinion evidence, just what results would be achieved by a filter made strictly in accordance with the teachings of the French patent.

As fully explained on pages 10 and 11 of the Supplemental Brief for Appellee, the testimony offered by both parties demonstrated that the true operating characteristics of filters of the type under consideration cannot be determined by mere visual inspection but require tests under carefully controlled test procedures and specially designed equipments. In view of this need, both parties introduced in evidence a number of charts showing test results and consequently the operating characteristics of the filter of the Farr patent in suit, the Air-Maze P5 filter and a number prior art filters [Appellants Exs. HH, MM, VV, XX and ZZ and Appellees's Exs. 11, 13, 29, 30, 31, 54B-1 and 54B-2]. After carefully considering these performance data, the court found that the filter of the Farr patent in suit (and the infringing Air-Maze P5 filter) achieves "new and surprising results" in that it has "high effciency in removing dust from the air and also a low pressure drop which did not increase rapidly" [Finding of Fact 31, R. 1180]. A similiar finding is made in Finding of Fact 6 [R. 60].

Filters having passages extending therethrough but formed of solid walls were in existence prior to the invention of the patent in suit.* As conceded by appellants' witness Watterson, such filters have 7 to 10 percent less efficiency than filters manufactured under the Farr patent in suit [R. 330]. In addition, while filters constructed of mesh screen were also in use prior to the time of the invention of the patent in suit,** such filters had high efficiency but had a rapidly rising pressure drop with dust load [R. 146, 956]. The Farr patent in suit for the first time provided a filter which had not only high efficiency but in addition a low pressure drop which did not rise rapidly with dust load. The District Court so found in Findings of Fact 6 and 31 [R. 60, 1180]. These findings were fully established by actual tests as shown, for example, in exhibits HH, VV, 11, 13, 29, 30, 54B-1 and 54B-2.

No attempt whatever was made by the appellants to show that a filter built in accordance with the teachings of the French Niestle patent would accomplish these new results. Indeed, appellants introduced no evidence whatever as to the performance of a filter manufactured according

^{*}The Detroit paper filters, as described, for example, in the prior art patent to Kaiser 2,019,186 [R. 1022]. As noted on page 30 of the Supplemental Brief for Appellee, the Patent Office agreed with the District Court in this action that the Farr patent constitutes invention over the Detroit air filters.

^{**}Air-Maze Type B filters wherein the screens were placed in sheets perpendicular to the air flow.

to the teachings of the Niestle patent. Quite to the contrary, the appellants produced three filters [Exs. DD, LL and YY] which they sought to show represented the Niestle filter. These filters were not in the prior art but were constructed by appellants for the purpose of this suit. In each, wire screen had been employed instead of the non-foraminous materials required by the French patent. Appellants' only attempt to show the performance of a Niestle filter was to produce test results of Exhibits LL and YY filters [Ex. MM and ZZ, R. 1076, 1078]. For each test the oil had been either drained or sucked from the filter to open the screen interstices [R. 521, 704, 705], contrary to the teachings of the Niestle patent. The fact that appellants constructed and introduced test results of Exhibits LL and YY leads to the inescapable inference that appellants must also have constructed and tested one or more filters which followed the teachings of the Niestle patent but that the results obtained were unfavorable. This inference is buttressed by the fact that appellants' expert Watterson conceded that the Detroit air filter had substantially less efficiency than the Farr filter [R. 330], and the Detroit air filter, like the filter of the French Niestle patent, is one having passages extending through the filter but formed of walls of non-foraminous material.

In addition to the above, the record conclusively establishes a further and additional result achieved by the filter of the Farr patent in suit which is not achieved by the Niestle filter. Thus, Finding of Fact 6 recites in part: "* * the air filter panel of the Farr patent in suit providing the further advantages of low cost of manufacture and low maintenance as well as ease of cleaning." [R. 60] As previously noted, the Niestle patent teaches the use of sheets of material which are placed perpendicular to the flow of air. These sheets must not only be punched out and then carefully aligned to provide the required passages through the filter but must somehow be secured together so as to maintain this alignment. An examination of Exhibit YY demonstrates that the filter material is made of copper mesh which, of course, is far more expensive than the simple steel or aluminum screen employed in the Farr filter and the infringing Air-Maze filter. Appellants' witness Brown, who constructed Exhibit YY, conceded under questioning by the District Court that the normal aluminum or steel screen wire could not be formed as taught by the Niestle patent and that a special run of wire was required for a suitable material [R. 705]. Moreover, to maintain alignment of the elements, it was necessary to laboriously solder successive elements together at given points to hold the screen layers in position [R. 771]. In view of the greatly increased cost of materials and complexity of manufacture, appellee's expert Duncan testified that it would not be practical to manufacture such a filter [R. 772]. This statement by a thoroughly qualified expert in the field was not challenged by appellants and accordingly stands conceded on the record.

Summarizing the above, the Niestle patent requires that the passages through the filter be formed of solid walls so as to confine the flow of air through such passages. The patent in suit is directly to the contrary, requiring that the walls of the passages through the filter be open so as to permit the flow of air therethrough. This difference results in an entirely different mode of operation between the two filters. Moreover, the Niestle filter does not achieve the advantages of the filter of the patent in suit. While the Niestle filter may have a low pressure drop with low rise in pressure drop as the dust load increases, it accomplishes this end only by a substantial sacrifice in filtering efficiency; where as the filter of the Farr patent in suit provides not only low pressure drop and small increase in pressure drop with dust load but at the same time provides high efficiency. Finally, while the Farr filter can be simply manufactured with inexpensive materials, the filter of the French Niestle patent requires expensive materials and laborious and costly manufacturing techniques, with the result that it is not a practical filter. Since each of these facts is fully supported by the evidence, appellee respectfully submits that Finding of Fact 13 is in all respects correct.

II.

Physical Exhibit YY Did Not Exist in the Prior Art and Was Not Made in Accordance With the French Niestle Patent.

In its opinion this Court states that Exhibit YY* shows that the angled slot passages surrounded by the screen gauze of the Niestle patent give exactly the same mechanism to collect the dust as the Farr device. If this be the basis for the Court's disagreement with Finding of Fact 13, it is respectfully submitted that the Court has been misled, albeit accidentally, into assuming that such exhibit exemplifies the teachings of the Niestle patent. Such is not the case. Exhibit YY was constructed by appellants' witness Brown during the trial of the action [R. 700] and was made of 16 mesh (16 openings or interstices per linear inch) wire screen [R. 696]. This mesh size corresponds to that employed in the Farr filter and the infringing Air-

^{*}Indicated in the opinion as "KY." It is assumed that this is a typographical error inasmuch as there is no exhibit identified as "KY."

Maze P5 filter [R. 173]. Exhibit ZZ [R. 1086], which shows the performance of filter YY, was obtained by first oiling the filter and thereafter sucking the oil from the filter to open up the screen interstices [R. 706]. Such filter is not only not described in the French Niestle patent but, to the contrary, is diametrically opposed to the teachings of the Niestle patent and accordingly should not be considered by this Court as exemplifying the prior art.

The French Niestle patent, a translation of which appears on pages 1069 to 1074 in the record, describes a filter having air passages through which the air may flow from the entrance to the exit sides of the filter. The patent repeatedly and explicitly describes these as confining passages which compel the flow of air therethrough. Thus, the patent states: "The gas is thus compelled to follow a path between sharply staggered points" [R. 1070]. "* * * the gas is thus forced to circulate along a winding path" [R. 1071]. "* * * elements * * * comprising zig-zag conduits compelling the dust-laden gas to follow a winding path" [R. 702]. And finally, "5. The metal gauze has meshes fine enough for the liquid to fill them by capillary action and form a continuous, thick liquid film, favoring the deposition of the dust suspended in the gas." [R. 1074]. The patent describes several different types of materials which may be employed for the filter material. These are "metal plates," "metal gauze * * * fine enough for the liquid, such as oil, applied thereon to fill the meshes by capillary action and form a continuous, thick film of oil," "metal plate * * * perforated with holes * * * of small diameter, intended to retain the oil, again forming a continuous film over these holes," and finally a "metal plate * * * (having) grooves * * * keeping the film of oil on the surface of the element" | R. 1071-1073].

These repeated and explicit directions in the French patent demonstrate that the very essence of the patent is that the air stream be absolutely confined in the passages extending through the filter, and each of the materials suggested fulfills this requirement. Thus, the described metal plates or the metal plates with grooves necessarily present solid wall surfaces. Where either wire gauze or metal plates perforated with small holes are suggested, the patent is careful to point out that the openings in these materials are to be filled with oil so as to present solid surfaces.

To transform the solid wall passages required by the Niestle filter into foraminous or open passage walls through which the air may pass not only departs from the teachings of the Niestle patent but is diametrically opposed to such teachings. The result, as pointed out in the first section of this petition, is not only a filter having an entirely different mode of operation, but a filter which achieves new and unexpected advantages and results. It is submitted that under the circumstances this Court should place no reliance whatever on appellants' Exhibit YY as regards the validity of the Farr patent in suit.

III.

The Facts Conclusively Established at the Trial of This Action Fully Satisfy the Legal Requirements for Patentability Set Forth in the A. & P. Case.

As noted by this Court in its opinion, the Supreme Court in A. & P. Tea Co. v. Supermarket Corp., 340 U. S. 147, has stated the test of patentability to be "unusual or surprising consequences" resulting from the unification of elements in a new combination. Appellee submits that the results accomplished by the Farr patent in suit completely met this test. A comparison of the filter of the patent in suit with that described by the French Niestle patent demonstrates that: (1) a new mode of operation is achieved, (2) markedly superior performance is achieved, and (3) a practical and commercially successful, as distinguished from an impractical filter, results.

That the new results achieved are unusual and surprising is clear. Thus, the performance of filters of the type here considered is in large measure unpredictable and can only be ascertained by carefully controlled tests. This is strikingly demonstrated by the testimony of appellants' own expert Russell who, when asked to compare the operating characteristics of the Kleenaire filter (about which he was testifying) with that of the filter of the Farr patent in suit, stated that he could not do so because he had not tested the Kleenaire [R. 1361]. Moreover, as pointed out by the District Court in its memorandum opinion, prior to the invention of the patent in suit, the industry had made an exhaustive study of air filters by Professor Rowley (another of appellants' experts) and was "going to great pains and great lengths and spending a great deal of money and doing it scientifically in order to find what apparently the plantiff put together here in a combination, a successful and novel and useful invention." [R. 822] Further, the District Court, while expressly noting that commercial success in itself is insufficient to support a patent, noted that the commercial success of the Farr filter indicated strongly that the same amounted to invention [R. 821]. The record discloses that the industry had for years been compelled to select either a filter of high efficiency or, in the alternative, a filter with low pressure drop and low rise in pressure drop with dust load. For the first time, the patentee Farr produced a filter having both these characteristics. The response of the industry to the new filter was little less than remarkable. The patentee

commenced operation with substantially no capital in a small room, assisted only by his two sons. The everincreasing demand for the Farr filter has resulted in the business expanding until it now occupies a large new manufacturing plant employing some 150 people, and having sales throughout the entire United States and many foreign countries [R. 303].

The District Court found that the Farr filter achieved "new and surprising results * * * high efficiency in removing dust from air and also a low pressure drop which did not increase rapidly * * * with dust load" [Finding of Fact 31, R. 1180]. This Finding is fully supported by the record, and indeed, the appellants introduced no real evidence inconsistent therewith. Accordingly, the test of invention prescribed by the Supreme Court in the A. & P. case is fully met.

An additional factor not mentioned by this Court in its opinion is the savings in cost of materials, simplicity of construction, low maintenance and ease of cleaning of the Farr filter over that of the Niestle patent as described in Finding of Fact 6 [R. 60]. The courts have repeatedly recognized that "To obtain simplicity is the highest trait of genius" and have many times sustained patents for inventions which, as here, represented marked simplification over prior devices or accomplished an old result in a more facile, economical and efficient way. See, for example, the recent decision of this Court in Stearns v. Tinker & Rasor (1955, 220 F. 2d 49. See also Willard v. Union Tool Co. (C. A. 9 1918), 253 Fed. 48; Aronson v. Toy Devices (C. A. 3 1924), 1 F. 2d 91; Postage Meter Co. v. Standard Mailing Mach. Co. (C. A. 1 1925), 9 F. 2d 19; National Tube Co. v. Aiken (C. A. 6 1908), 163 Fed. 254; James Heekin Co. v. Baker (C. A. 8 1905), 138 Fed. 63.

Conclusion.

Appellee respectfully submits that (1) Finding of Fact 13, with which this Court has expressed its disagreement, is overwhelmingly supported by the evidence and cannot properly be set aside under the mandate of Rule 52(a) of the Federal Rules of Civil Procedure; (2) Physical Exhibit YY on which this Court relied in its opinion does not represent a filter made in accordance with the teachings of the French Niestle patent but to the contrary is diametrically opposed to such teachings and (3) the remarkable properties of the filter of the patent in suit conclusively established by the test data presented to the trial court plus the simplicity and economy of manufacture of the filter fully satisfy the requirements for invention as established by the decisions of this Court and by the Supreme Court in A. & P. Tea Co. v. Supermarket Corp., 340 U. S. 147.

Petitioner therefore respectfully requests it be granted a rehearing on these points.

Dated at Los Angeles, California, this 8th day of November, 1956.

Respectfully submitted,

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Certificate of Counsel.

I, RICHARD E. LYON, of counsel for Petitioner in the above entitled action, hereby certify that the foregoing petition for rehearing of this cause is presented in good faith and not for delay, and in my opinion is well founded in law and in fact, and proper to be filed herein.

> RICHARD E. LYON, Attorney for Petitioner.